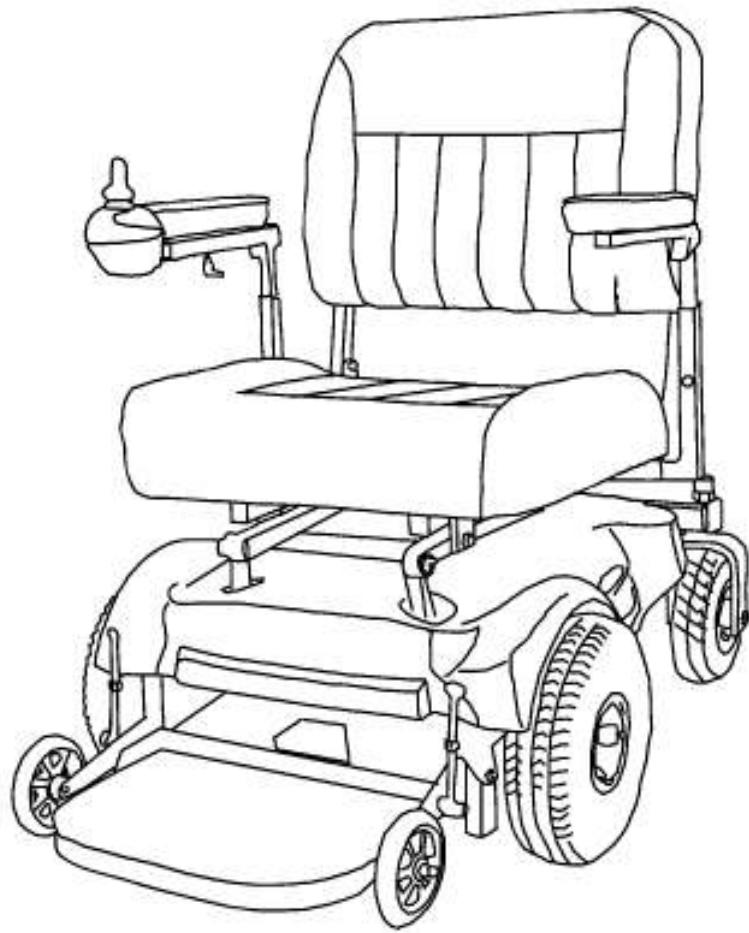




# HOSS Jr. Owner's Manual



## *Model 600 LJ*

**READ** this entire Owner's Manual **BEFORE** you operate your new power wheelchair!

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THIS MANUAL COVERS THE OPERATION OF YOUR NEW  
***HOSS Jr.*** POWER WHEELCHAIRS. BE SURE AND FIND THE  
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## ***HOSS Jr. OWNERS MANUAL***

### **Introduction**

**Congratulations on your choice of a *Hoss Jr.* wheelchair! It is a dependable vehicle built for power and performance. Its easy to operate controls give you more of what you are looking for in a wheelchair.**

**But it is important that you understand what your wheelchair is, and what it is not. Our wheelchairs (like all wheelchairs) are designed to provide safe, reliable transportation to older or moderately physically disabled individuals who have difficulty in getting around. It will safely take you everywhere the specifications indicate as long as you follow the simple safety guidelines shown on the next few pages.**

***Hoss Jr.* is not all terrain vehicles that you can use out in the fields to drag brush around or climb steep hills. It was not meant to go hunting in, or transport you thru hazardous environments. It also was not designed for the severely handicapped individual who should not be in a power wheelchair. You must have good stability, motor control and above all else, good common sense to use our wheelchair, or any other brand. If you feel that you cannot safely operate this vehicle at all times, you should not use this wheelchair!**

### **Important**

**Please read the entire manual carefully before attempting to drive your new *Hoss Jr.*..**

**Remember to read all service recommendations outlined in this manual to achieve trouble free, safe and enjoyable operation of your *Hoss Jr.*. Failure to follow the recommended service procedures will damage your wheelchair and such damage is not covered under warranty. Contact your dealer if you have questions after reading this manual.**

**ConvaQuip Ind., Inc. specifically disclaims responsibility for any bodily injuries or property damage which may occur during or because of improper use or any use which does not comply with applicable Federal, State, or Local laws and ordinances or methods recommended in this manual. If in doubt about your ability to operate your *Hoss Jr.*, consult your doctor.**

**NOTE: MODIFYING AND/OR TAMPERING IN ANY UNAUTHORIZED MANNER WITH THE WHEELCHAIR WILL VOID THE WARRANTY AND MAY CAUSE THE WHEELCHAIR TO MALFUNCTION, EXPOSING YOU TO PHYSICAL HARM.**

**ATTENTION:** This manual contains specific information about your *Hoss Jr.*. While some of the information is the same for all wheelchairs, make sure that you follow the specifications and directions that apply to the *Hoss Jr.*. If you are unsure of the style *Hoss Jr.* you have, contact your dealer.

Your *Hoss Jr.* is a vehicle which provides independence and freedom to people with limited mobility. Driver error can cause injury to the driver and to other people. Please use common sense, courtesy, and obey the following guidelines for vehicle operation.

**READ THIS ENTIRE MANUAL  
BEFORE DRIVING THIS VEHICLE.**

### **Safety Guidelines**

**Always** turn the power switch to the OFF position when stopped or when getting off or on the *Hoss Jr.* This keeps you from accidentally hitting the throttle and causing an accident. For persons with limited lower body strength, or persons who make slide transfers and may forget to turn the power switch off, we recommend special caution.

**DO NOT** operate the unit if it behaves erratically, or shows abnormal response, heating, smoking or arcing. Turn the system off at once and call your dealer for service.

**Use extra caution** when riding your *Hoss Jr.* off of the pavement or on rough, uneven or soft surfaces tipping and injury may result.

**Do not exceed** the incline specifications for your *Hoss Jr.* wheelchair or it will become unstable and tipping will result. Persons with limited ability to protect themselves (like persons paralyzed on one side) should use protective equipment such as bicycle head-gear. The specification chart in your manual will indicate the maximum incline for your particular style wheelchair.

**Keep your feet** on the footrests while riding the *Hoss Jr* to avoid hitting them on objects as you drive. Always wear shoes while operating your wheelchair.

**Always wear your lap belt when riding your wheelchair**

**Lock the seat** assembly before operating the *Hoss Jr* to prevent yourself from falling from the seat while moving.

**Remember**, The *Hoss Jr* is built to carry a single person. Do not carry passengers under any circumstances or accidents and bodily injury will occur.

**Always** go straight down curb cuts no greater than 3" or in a ditch go straight up curb cuts no greater than 2", not at an angle. You want the front wheels and the rear wheels to climb up or go down together, not one at a time. Not doing this will result in the wheelchair violently swinging from side to side (as a car would in a ditch) or the wheelchairs overturning. Also approach curb access ramps the same way, straight on, not at an angle. **NEVER** attempt to go up or down a regular height curb or tipping and personal injury will result!

**Warning** Driving the *Hoss Jr* in busy streets, busy parking lots, or in crowded shopping malls can be dangerous for you or other people as you may be struck by a vehicle or you might strike a pedestrian. Use caution in congested areas at all times.

**Lean forward** a slight amount when traveling up an incline.

**NEVER** leave your wheelchair exposed to the elements. This includes storage outside or carrying the wheelchair on an outside car-lift during periods of high moisture (mist, rain, snow, etc.) or any other inclement weather (dust or sand storms, etc.). Use only a damp rag to clean your wheelchair (never use solvents or abrasive cleaners). The use of excessive water, as from a garden hose or bucket may cause damage to your wheelchairs electronics.

**Use caution** when driving off even a small curb or raised surface (with a 3" maximum). The act of dropping off the edge subjects the wheelchair to extreme forces that can damage the frame and other components. This type of damage is not covered under warranty.

**Disconnect the batteries** before performing any maintenance or if you will not be riding the wheelchair for more than a few days. This avoids both the possibility of injuries due to shock and helps lengthen the battery life. Make sure that the batteries are secure when you are using the wheelchair.

**Follow the directions** of your doctor and/or pharmacist at all times. Do not drive the *Hoss Jr.* while taking medications that affect your reflexes or judgment, as your driving will be impaired and accidents may result. Do not drink alcohol or use any other stimulants while operating this or any other vehicle.

**The following are important things to help you drive the *Hoss Jr.* in the safest possible manner. Please take note of each and every one.**

**WARNING DO NOT** engage in the following activities with your *Hoss Jr.* or serious personal injury may result.

..... ride the *Hoss Jr.* with the brake disengaged at anytime.

.....drive the *Hoss Jr.* diagonally across inclines, turn sharp on an incline or make turns at or near full throttle at any time. Doing this will result in the wheelchair losing traction and control which can result in tipping and possibly serious injuries.

....drive the *Hoss Jr.* with the seat assembly higher than necessary as tipping and serious injury may result. The lower the seat, the better your stability.

.....drive the *Hoss Jr.* with under-inflated tires as this increases the possibility of tipping and injury. Your stability and efficiency (power and range) are also greatly affected.

.....remain seated on your wheelchair while it is being loaded into a vehicle using anything other than a special wheelchair lift, or personal injury may result.

.....use the *Hoss Jr.* as a seat in a moving vehicle. Because no wheelchair is designed to withstand the impact of any automobile accident. The rider should be seated in a regular automobile seat and restrained by an approved automobile safety belt. Also, the wheelchair and batteries **MUST** be independently and properly restrained or stored in a separate compartment so as to prevent it from causing injury in an accident.

.....ride on soft, uneven surfaces as this can cause loss of traction and control causing tipping and that may result in serious injury.

.....stop on any incline to rest or dismount. Although the electric brake will stop and hold you, it is best to stop in level, flat areas where there is no possibility of rolling, or tipping the unit or having the occupant fall out.

.....ride your wheelchair without wearing your lap belt at all times or serious injury may result. This is especially important on ramps or inclines.

.....drive up, down or across inclines greater than the rating for your style *Hoss Jr.* or tipping will result. Refer to the Specification Sheet and Ramp Incline Chart on the back page of this manual (Please Note: Soft surfaces reduce the incline capability by more than 50%). Wet or slick surfaces reduce steering and braking controls tremendously. Use extreme caution in these circumstances.

.....allow the *Hoss Jr.* controls to become wet. Never wash off the wheelchair using a hose or a stream of water, drive through standing water or ride in the rain. Possible loss of control and/or electronic damage will occur. Do not attempt to ride a wheelchair that has been soaked until it has had a chance to dry thoroughly.

.....leave the *Hoss Jr.* where it is exposed to high temperatures (a car trunk, etc.) or to poor weather conditions such as rain or snow or freezing conditions as damage to the unit will occur.

.....disassemble any wheel at any time while still inflated. The pressure may blow wheel rims apart while you are loosening them.

.....ride the unit near stairs, ledges or in any other potentially dangerous situation as serious injury can result.

.....ride the wheelchair over power cords, oxygen lines, hoses or any other material that could become entangled in the wheels or get caught in the drive mechanism of the wheelchair or while connected to equipment off of the wheelchair.

DO NOT attempt to reach objects if you have to move forward in the seat.

DO NOT attempt to reach objects if you have to pick them up from the floor by reaching down between your knees.

DO NOT lean over the top of the seat back to reach objects from behind as this may cause the wheelchair to tip over or cause you to fall out.

DO NOT shift your weight or sitting position toward the direction you are reaching as the wheelchair may tip over.

DO NOT tilt the wheelchair without assistance.

DO NOT use an escalator to move a wheelchair between floors. Serious bodily injury may occur.

ALWAYS turn the wheelchair power OFF and engage the motor locks/clutches to prevent the wheels from moving BEFORE attempting to transfer in or out of the wheelchair. Also make sure every precaution is taken to reduce the gap distance.

DO NOT engage or disengage the motor locks/clutches until the power is in the OFF position.

DO NOT operate on roads, streets or highways.

DO NOT climb, go up or down hard surface ramps greater than 7 degrees or soft surfaces of greater than 5 degrees.

DO NOT attempt to move up or down an incline with a water, ice or oil film or loss of control & braking will result.

DO NOT attempt to drive over curbs or obstacles taller than 2.5". Doing so may cause your wheelchair to turn over and cause bodily harm or damage to the wheelchair.

DO NOT use unauthorized parts, accessories, or adapters other than those authorized by ConvaQuip Ind., Inc..

DO NOT attempt to lift the wheelchair by lifting on any removable (detachable) parts. Lifting by means of any removable (detachable) parts of a wheelchair may result in injury to the user or damage to the wheelchair.

DO NOT stand on the frame of the wheelchair.

DO NOT use the footplate as a platform. When getting in or out of the wheelchair, make sure that the footplate are in the upward position or swing footrests towards the outside of the wheelchair.

ALWAYS wear your lap belt.

## ELECTRICAL

EXTREME care should be exercised when using oxygen in close proximity to electric circuits. Contact your oxygen supplier for instruction in the use of oxygen.

Grounding instructions:

DO NOT, under any circumstances, cut or remove the round grounding prong from any plug used with or for ConvaQuip Ind., Inc. products. Some devices are equipped with three-prong (grounding) plus for protection against possible shock hazards. Where a two-prong wall receptacle is encountered, it is the personal responsibility and obligation of the customer to contact a qualified electrician and have the two-prong receptacle replaced with a properly grounded three-prong wall receptacle in accordance with the National Electrical Code. If you must use an extension cord, use ONLY a three-wire extension cord having the same or higher electrical rating as the device being connected. In addition, ConvaQuip Ind., Inc. has placed RED/ORANGE WARNING TAGS on some equipment. DO NOT remove these tags. Carefully read battery/battery charger information prior to installing, servicing or operating your wheelchair.

## RAIN & MOISTURE

LEISURE-LIFT has established the following rules for dealing with moisture.

End user or their attendant should allow sufficient time to remove his/her power wheelchair prior to a rain storm or inclement weather to retain wheelchair operation.

DO NOT leave your power wheelchair in a rain storm of any kind.

DO NOT use your power wheelchair in a shower or leave it in a damp bathroom while taking a shower.

DO NOT leave your power wheelchair in a damp area for any length of time. Direct exposure to rain or dampness will cause the wheelchair to malfunction electrically and mechanically; may cause the wheelchair to prematurely rust.

Check to ensure that the batteries are secured in place, the joystick boot is NOT torn or cracked where water can enter and that all electrical connections are secure at all times.

DO NOT use the joystick if the boot is torn or cracked. If the joystick boot becomes torn or cracked, replace IMMEDIATELY.

## WEIGHT TRAINING

ConvaQuip Ind., Inc. DOES NOT recommend the use of its *Hoss Jr.* as a weight training apparatus. Wheelchairs have NOT been designed or tested as a seat for any kind of weight training. If occupant uses said wheelchair as a weight training apparatus, ConvaQuip Ind., Inc. shall NOT be liable for bodily injury and the warranty will be voided immediately.

## SAFETY/HANDLING OF WHEELCHAIRS

“Safety and Handling” of the wheelchair requires the close attention of the wheelchair user as well as the assistant. This manual points out the most common procedures and techniques involved in the safe operation and maintenance of the wheelchair. It is important to practice and master these safe techniques until you are comfortable in maneuvering around the frequently encountered architectural barriers.

Use this information only as a “basic” guide. The techniques that are discussed on the following pages have been used successfully by many.

Individual wheelchair users often develop skills to deal with daily living activities that may differ from those described in this manual. ConvaQuip Ind., Inc. recognized and encourages each individual to try what works best for him/her in overcoming architectural obstacles that they may encounter. Techniques in this manual are a starting point for new wheelchair users and assistants with “safety” as the most important consideration for all.

## STABILITY AND BALANCE

### **WARNING**

Always wear your lap belt.

To assure stability and proper operation of your wheelchair, you must at all times maintain proper balance. Your wheelchair has been designed to remain upright and stable during normal daily activities as long as you do not move beyond the center of gravity.

The anti-tip wheels are normally positioned approximately two inches off the ground (with a rider in the chair) but may be adjusted in height downward by your dealer. Because *Hoss Jr.* is a "midi" (3/4) drive chair the anti-tip wheels are normally only used when braking going forward down a steep incline. Reducing this setting causes the powerchair to tilt forward at a lesser angle before resting on the anti-tip wheels if you decelerate rapidly while going down a hill. The normal adjustment should allow the *Hoss Jr.* to easily climb a two inch obstacle.

DO NOT lean forward out of the wheelchair any further than the length of the armrests.

## **STAIRWAYS - WARNING**

DO NOT attempt to move an occupied power wheelchair between floors using a stairway or escalator. Use an elevator to move an occupied power wheelchair between floors. If moving a power wheelchair between floors by means of a stairway, the occupant **MUST** be removed and transported independently of the power wheelchair. Again, DO NOT use an escalator to move a wheelchair between floors. Serious bodily injury may occur..

Extreme caution is advised when it is necessary to move an UNOCCUPIED power wheelchair up or down the stairs. ConvaQuip Ind., Inc. recommends disassembling your wheelchair into smaller, more manageable components to keep from personal injury. Lifting by means of any removable (detachable) parts of a wheelchair may result in injury to the user or damage to the wheelchair.

Follow this procedure for moving wheelchair between floors when an elevator is NOT available:

## **ESCALATORS - WARNING**

DO NOT use an escalator to move a wheelchair between floors. Serious bodily injury may occur.

## **TRANSFERRING TO/FROM OTHER SEATS**

### **WARNING**

**ALWAYS** turn the wheelchair power **OFF** and engage the motor locks/clutches to prevent the wheels from moving **BEFORE** attempting to transfer in or out of the wheelchair. Also make sure every precaution is taken to reduce the gap distance.

### **CAUTION**

When transferring, position yourself as far back as possible in the seat. This will prevent damaging the upholstery and the possibility of the wheelchair tipping forward.

## **PERCENTAGE OF WEIGHT DISTRIBUTION**

### **WARNING**

DO NOT attempt to reach objects if you have to move forward in the seat or pick them up from the floor by reaching down between your knees.

Many activities require the wheelchair user to reach, bend and transfer in and out of the wheelchair. These movements will cause a change to normal balance, center of gravity, and weight distribution of the wheelchair. To determine and establish your particular safety limits, practice bending, reaching and transferring activities in several combinations in the presence of a qualified health professional **BEFORE** attempting active use of the wheelchair. Remember. . . Keep your lap belt on at all times.

Never roll backward down an incline as caster rotation reduces rearward stability.

## **REACHING, LEANING, BENDING AND BENDING - FORWARD**

Position the rear casters so that they are extended as far rearward as possible and engage motor locks/clutches. **DO NOT LEAN FORWARD OF THE ARMRESTS.**

## **REACHING, BENDING - BACKWARDS**

### **WARNING**

**DO NOT** lean over the top of the back upholstery. This will change your center of gravity and may cause you to tip over.

Position wheelchair as close as possible to the desired object. Point rear casters rearward to create the longest possible wheelbase. Reach back only as far as your arm will extend without changing your sitting position.

Persons having disabilities which limit their ability to remain erect without assistance, (stroke patients, severe muscular diseases, etc.) should carefully evaluate whether they should operate a wheelchair at all. If they decide, with the advise of their physician or another advisor, that they are capable of safely operating a wheelchair, they should consider the use of a bicycle helmet or pads when operating a wheelchair. These articles would help protect them should they find themselves in a hazardous situation where they could tip over or fall because of their lack of balance.

**DIFFERENT STYLES OF WHEELCHAIRS HAVE DIFFERENT INCLINE CLIMBING ABILITIES. CAREFULLY STUDY THE CHART TO SEE THE CORRECT SPECIFICATIONS FOR YOUR UNIT. DO NOT EXCEED THE SPECIFICATIONS OF THE WHEELCHAIR STYLE YOU PURCHASED!**

## SPECIFICATIONS

### Hoss Jr.

Seat Width Range:	24" - 30"	
Seat Depth:	19.5", 21", 22.5"	
Seat-to-Floor:	19.3" - 21.3" (uncompressed foam)	
Seat-to-Footrest	13.9" - 17.9" (uncompressed foam)	
Overall Width (No joystick):	28.5" (outside tire to outside tire)	
Overall Height:	39" - 41"	
Overall Length	49"	
Weight	Pnuematic Tires	Filled Tires
Motor/Suspensions Section	106.5 lbs.	136 lbs.
Footplate/Front Anti-Tip System	23 lbs.	23 lbs.
Seat and Controller	58.5 lbs.	58.5 lbs.
TOTAL	188 lbs.	217.5 lbs.
Batteries (2)	58.5 lbs. each	58.5 lbs.
Complete W/Batteries (Gel Cell):	305 lbs.	344.5 lbs.
Battery/Size (Not Supplied)	Group 24	
Speed: Adjustable	4.6 mph Max. at 500 lbs.	
Range*:	18 - 20 miles (varies with weight)	
Turning Radius:	27"	
Ground Clearance	3"	
Max Curb Climbing	2.5"	
Max. Incline Stability		
<i>Hard Surface</i>	7°	
<i>Soft Surface</i>	5°	
Tire Pressure		
Front Anti-Tip Wheels	Solid	
Main Drive Wheels	Flat Free - Std (50 psi with optional pneumatic)	
Caster Wheels	Flat Free - Std (50 psi with optional pneumatic)	
Max. Weight Capacity	500 lbs.	

7 degrees = 12%

### **Do Not Exceed The Maximum Incline Stability For Your Style Power Wheelchair!**

Incline stability (maximum up-hill angle) is determined using applicable RESNA & ISO criteria for determining static and dynamic stability (ISO 7176-1 & 2, ANSI WC/01 & 02). Tests are conducted using the maximum rider weight specified in the owners manual and the seat in its' least favorable position.

\*Range based on 600 lb. rider on a hard level surface with Group 24 batteries. Customer's range may vary according to customer's weight.

## **Getting On and Off The *Hoss Jr.***

### **The following is a recommended method for getting on your *Hoss Jr.*.**

1. The wheelchair should be stopped on a flat, level surface with the power switch in the OFF position (no visible lights).

(SEE WARNING AT BOTTOM OF PAGE)

2. Raise the foot rest plate so that you may back up to the wheelchair squarely.
3. Position yourself squarely in front of the seat and lower yourself into the seat using the armrests if necessary. (Never use the control housing or joystick as a support while getting on and off the wheelchair.)
4. Lower the footrest and place your feet securely on the footrest.
5. Buckle the safety belt around yourself belt to help hold yourself securely in the chair.
6. Push the power button on the speed control, the LED lights should activate.
7. When seated comfortably, you can drive the *Hoss Jr.*.

### **The method for getting off is the reverse procedure.**

1. Turn the power switch OFF when stopped (no visible lights).
2. Unfasten your safety belt and raise (or have someone raise) the footrest bracket.
3. Make sure your feet are planted firmly on the ground and stand up.

## **WARNING**

Keep the power button in the OFF position at all times when stopped or when getting on or off the wheelchair. Sudden accidental movement of the wheelchair will be avoided with the power switch in the OFF position.

Tipping can occur if you get on the *Hoss Jr.* in a manner other than recommended. Tipping can be avoided by keeping your weight away from the outer edges until seated. If you step into the wheelchair, sit directly in the center of the seat, not near the edge. Tipping may also occur if you turn the joystick sharply while traveling at or near full throttle.

## **Operating the Hoss Jr.**

Controls for *Hoss Jr's* operation are located on the arm mounted joystick console and the power module mounted to the frame. Become familiar with all controls with the power button in the OFF position. Each is described in the following section

### **Joystick Console**

**1. TURNING THE POWER ON** Press the Power button. All indicators will flash briefly. The current state of battery charge will be displayed and the powerchair may be operated as normal.

*Note: If the SHARK is turned on while the joystick is out of neutral, an OONAPU fault will be displayed - refer to table on page 26. Release the joystick back to neutral and the fault will disappear.*

*OONAPU (Out Of Neutral At Power Up) is a feature that prevents SHARK for driving if the joystick is out of neutral when SHARK is turned on or an inhibit condition removed.*

*This feature prevents sudden and unexpected powerchair movements.*

**1.1 TURNING THE POWER OFF** Press the Power button. The LED's will turn off.

*Note: Alternatively, SHARK may a be placed into a Lock Mode. This may be preferable to turning the power off if leaving the powerchair at a place where unauthorized persons may attempt to use the powerchair.*

**2. SPEED SETTING KNOB** The speed knob is used to adjust the top speed of the chair without a loss of power. It ranges from slow to fast. A low setting (smallest mark on the knob upward) should be used indoors or in tight areas where speed is not required. A higher setting of medium to fast (larger marks on the knob upward) can be used outdoors and in open areas where higher speeds are manageable. PLEASE NOTE: This drive system has a power compensation feature which allows you to leave the knob set at a lower speed on a ramp, incline, or soft surface and still maintain sufficient power.

**3. BATTERY INDICATOR.** The SHARK Information Gauge (located on the joystick console) is the primary source of user feedback. It displays every possible status that SHARK may have.

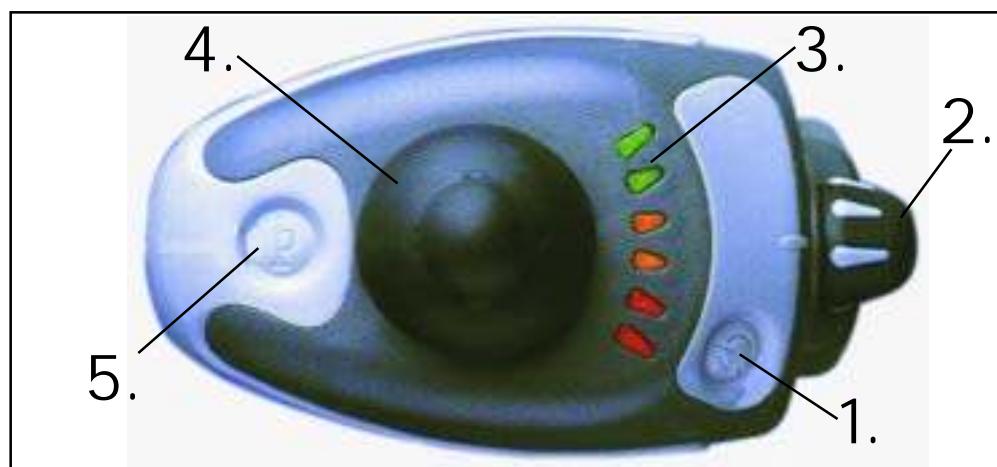
True state-of-battery-charge, including notification of when the battery desperately requires charging.

- Any green LED's lit indicates **well-charged** batteries.
- If **only amber and red** LED's are lit, the batteries are **moderately charged**.  
Recharge before undertaking a long trip.
- If **only red** LED's are lit the batteries are running out of charge. **Recharge** as soon as possible.

**4. THROTTLE CONTROL JOYSTICK LEVER.** The black knob mounted on the top of the control panel is both the throttle and direction control lever (Push Slowly). Pushing the lever with your thumb in the direction of the horn button on the control faceplate will make the wheelchair go forward or backward accordingly. Pushing the lever in slightly will make the wheelchair begin to move. The further you depress the lever, the faster the wheelchair moves. The top speed set by the SPEED KNOB is reached by fully depressing the joystick lever. Completely releasing the lever will stop power to the motor, activate the brakes, and you will come to a complete stop. For faster stops in forward, pull the joystick into reverse until the unit stops moving, then release the throttle.

### **5. HORN BUTTON**

Your unit also comes equipped with a built in horn, activated by depressing the horn button.



### **PLEASE NOTE:**

Should the joystick / brake control system not stop the unit, turning the power switch off will engage all brakes and stop the unit abruptly. This backup system should only be used in the unlikely event that the primary brake control is disabled, as the quick

stop could **CAUSE YOU TO SLIDE OFF THE WHEELCHAIR.** **Remember to wear your lap belt.**

**6. LOCKING THE SHARK** Some SHARK's may be supplied factory programmed with a LOCK Feature that prevents unauthorized people from turning the SHARK on.

#### **TO LOCK:**

While the power is ON, press and hold the Power button for 2 seconds. The horn will sound a short beep and all LED's will flash briefly. The powerchair will then turn off.

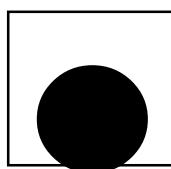
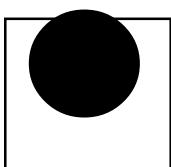
#### **TO UNLOCK:**

While the SHARK is locked, press the Power button to turn the SHARK on. All LED's will flash briefly. The LED's will then perform a right-to-left "chase". Press the Horn button twice before the timer completes its pass (approximately 6 seconds). The current state-of-charge will then be displayed and SHARK may be operated normally.

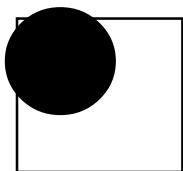
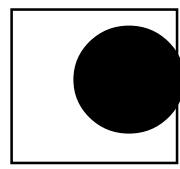
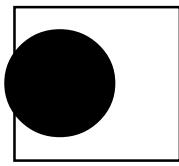
***Note: If the user does not press the Horn button twice within the time limit, the Horn will sound a short beep and SHARK will turn itself off. The unlock sequence must be completed successfully before the SHARK will drive again normally.***

## METHODS FOR CONTROLLING THE DIRECTION OF YOUR **HOSS JR** POWER WHEELCHAIR.

Pushing the Control Knob straight forward will cause the wheelchair to move in a forward direction. Your speed is determined by how far forward you push the control knob and by the speed control setting (# 2). Pulling back on the knob causes the wheelchair to move in the reverse direction

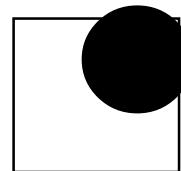


Moving the knob directly to the left (while stationary or moving) will cause the chair to turn to the left. Conversely, moving to the right will cause it to turn right. If you are stationary, the chair will tend to rotate where it sits. You may use this to position your self in place, or to prepare to travel in a different direction.



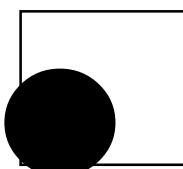
FULL SPEED  
LEFT TURN

The difficult part of controlling a power wheelchair is all of those moves in between the four main directions. Shown here are different directions for turning the wheelchair as you operate the vehicle, but remember these moves may be anywhere in between, it depends on the direction of travel required at the time. The important thing to remember is that in the forward positions, the joystick is like a pointer, point and that is the direction you will go. In reverse, the pointer is indicating the direction the front of the wheelchair will go, not the back. The best thing to do is learn to operate your power wheelchair in a large flat open space, and practice making the chair move in the direction you desire.

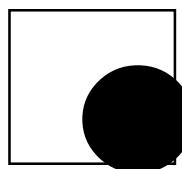


FULL SPEED  
RIGHT TURN

GRADUALLY BACK  
TOWARD THE RIGHT

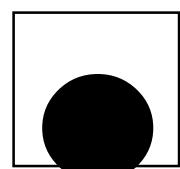


GRADUALLY BACK  
TOWARD THE LEFT



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In an emergency or a "Quick-Stop" situation, you may pull straight back on the control knob momentarily to cause the motors to apply reverse current and stop quickly. Use extreme caution, as this may cause your body to pitch forward in the chair. Always wear your lap belt.



## **For your first ride, we recommend the following.**

*When possible, always work with your dealer or therapist to learn how to use your wheelchair.*

*Different chairs have different adjustable features such as spring suspension, programmable controllers,*

*front anti-tips, footrest height & angle, length adjustments and arm adjustments etc.*

*Work with your dealer to make sure the wheelchair is specifically fitted to YOUR needs.*

1. Make sure the area is a flat, hard, smooth, open and free of obstacles.
2. Make sure your lap belt is securely fastened and the seat is securely locked.
3. Turn the SPEED setting knob to low.
4. Depress the power switch to turn the power switch to ON.
5. Push the control knob forward to go forward.
6. Steer the chair in different directions to get a feel for how the controls operate.
7. SLOWLY rotate the SPEED setting knob clockwise up from the slow position. Rotate the knob until the desired top speed is reached. Remember, power compensation will automatically give you more power and allows you to keep a slower speed should you need it.
8. Release the control knob to come to a stop. Take note of how the braking feels. The clicking you might hear upon starting, and shortly after releasing the control knob is the Electric Brake disengaging and engaging.
9. Push the control knob backwards to thumb to go backward. There is a forty-five percent (60%) reduction in speed in the reverse direction Without any change in the SPEED setting knob. Always make sure the area is clear behind you before backing up.
10. Remember to turn the power button OFF (no visible lights) when not driving, or getting on or off the wheelchair.

Speed controller characteristics are pre-set for the average rider. The anti-tip wheels are normally positioned approximately two inches off the ground (with a rider in the chair) but may be adjusted in height downward by your dealer. Because *Hoss Jr* is a "midi" (3/4) drive chair the anti-tip wheels are normally only used when braking going forward down a steep incline. Reducing this setting causes the powerchair to tilt forward at a lesser angle before resting on the anti-tip wheels if you decelerate rapidly while going down a hill. The normal adjustment should allow the *Hoss Jr* to easily climb a 2 1/2 inch obstacle.

### **Warning**

The *Hoss Jr* is designed for high maneuverability but use caution when encountering obstacles. Failure to drive cautiously can result in tipping and/or collisions which may cause physical harm. When approaching an obstacle, keep your speed at a minimum and maintain a safe distance from that object. Avoid all small objects on the ground. The wheelchair's ground clearance may be less than the size of the object. Running over an object or into a depression could cause overturning, or damage to the wheelchair. **NEVER** ride the unit near platforms, stairs, ledges, curbs or in any other potentially dangerous situation as severe injury can occur.

## **The Hoss Jr. Braking Systems**

The *Hoss Jr.*'s brake systems allow for smooth start up and safe braking without undue jerking. There are three (3) separate modes to the braking system: Regenerative, Dynamic, and Posi-Lock Electric Braking. All braking occurs automatically during wheelchair operation. Each type of braking is described in the following.

1. Regenerative Braking is activated while driving the *Hoss Jr.* down an incline. When the wheelchair picks up speed going down the incline, the motor generates electricity. This electricity is channeled back through the *Hoss Jr.* electronic control circuits to recharge the batteries. This action keeps the wheelchair from picking up excess speed and provides for smooth speed control.
2. Dynamic Braking is activated WITHOUT delay when all power is stopped to the motor by bring the control knob back to the center position, as when coming to a complete stop. This braking works until the Posi-Lock Electric brake is activated.
3. Posi-Lock Electric Braking Disk is activated with delay when all power is stopped to the motor. This electric brake has a short delay and ultimately holds the *Hoss Jr.* at a complete stop. The wheelchair cannot be moved when this brake is activated. Dynamic Braking works in conjunction with Posi-Lock Electric Braking to bring you to a gradual and complete stop.

## **MOTOR/BRAKE DISENGAGE MECHANISM**

The *Hoss Jr.* is equipped with one Motor/Brake Disengage lever (one for the entire motor). This systems allows the wheelchair to be moved in the event the batteries are run low, or there is a malfunction. To operate the Motor disengage mechanism, turn the power off to the wheelchair and push the handle completely backwards. The motor/brake combination is now disengaged and the wheelchair will not operate, but will roll freely.

### **Caution:**

**DO NOT** ride the *Hoss Jr.* with Motor/Brake Disengage Mechanism activated since there is a strong possibility an accident with injuries will occur. Should you experience any type of brake system malfunction, **DO NOT** ride or sit on the wheelchair. Have the system repaired immediately!

**SHOULD THE BRAKE DISENGAGE ON A WHEELCHAIR EVER APPEAR TO WORK POORLY OR INCORRECTLY, STOP RIDING IMMEDIATELY AND CONTACT YOUR DEALER FOR SERVICE!**

## **Seat Assembly Operation**

*Hoss Jr* comes with removable/height adjustable arms. These arms are designed to provide support for your arms while seated on the wheelchair, and for assistance when getting on and off of the wheelchair. **Each arm is designed to hold 300 pounds, and NOT THE PERSONS TOTAL BODY WEIGHT.** Persons with no use of their legs, or no ability to transfer weight to the floor should seek other means of assistance (slide board, helper, etc.) when transferring in and out of the wheelchair. Arm failure will result if excess weight is applied to the arm.

### **Width adjustable arm adjustments**

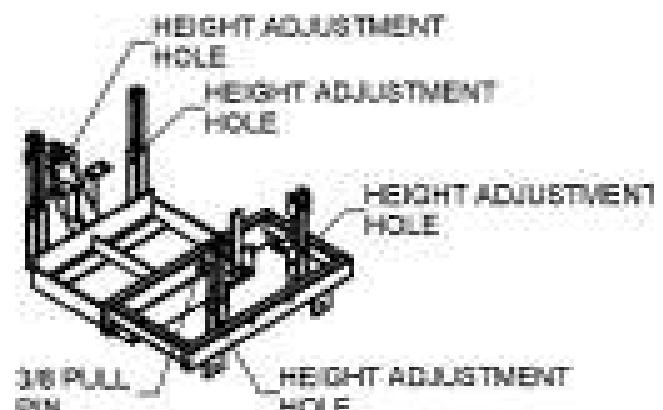
1. Loosen the black knobs under the edge of the seat. Rotate counter clockwise to loosen.
2. Slide the armrests in or out as needed.
3. Tighten the black knobs. Rotate clockwise to tighten.

Should you wish to remove the armrests, simply pull them out when the knobs are loose. Remember to tighten the knobs to avoid their loss.

### **Seat Height Adjustment**

The seat assembly is height adjustable.

1. Remove the seat assembly by un pinning the seat and lifting the seat assembly straight up. Set aside.
2. Locate the seat height adjustment bolts and nut located on the post where pins were removed.
3. Remove the bolt, nut, and washers. Take note of their position in order to correctly replace them.
4. The seat height post will now move up and down.
5. Position the seat height to new desired position.
6. Replace the washers, bolt, and nut in their proper order. Tighten until all play is eliminated.
7. Replace the seat assembly and test the new height.



It is recommended that the seat assembly be positioned at the lowest comfortable seat height. *Hoss Jr*'s stability will be improved with a lower height.

## **Disassembly and Assembly of the *Hoss Jr.***



The *Hoss Jr.*'s easy separation makes it very convenient to disassemble and assemble the unit. Complete disassembly can be accomplished in seconds WITHOUT tools. The procedure is as follows.

Make sure the power button has been placed in the off (no lights) position. Remember, it should already be in the OFF position since it was placed there when you last got off the wheelchair. Disconnect the power cord located at the rear of the seat on the seat bracket, unpin the seat at all four points, lift the seat assembly up and remove. Lift off the cover while passing the cable and connector through the hole in the cover.

Disconnect each battery by depressing the tab on each battery plug to unplug the cable. Remove both batteries.

First you need to remove the Footplate/Stabilizer wheel assembly from the front of the wheelchair, by removing the four wing-nutted bolts holding it to the main frame assembly. Raise the front footplate section up out of the way.

## **REASSEMBLING THE WHEELCHAIR**

To reassemble the wheelchair, simply repeat the same steps in reverse order. 1.) Replace the foot plate on the frame assembly and replace the wing-nuts and bolts.

**WARNING never operate the unit without reattaching the front section and the bolts/wing-nuts which holds the front section in place!**

Put the batteries in place and connect the battery cables. Align the red dots on each connector so that they line up. Push the plug straight in until the connectors click together. Place the connectors between the batteries.

Replace the rear cover by running the control cable through the hole in the cover and setting the cover securely on the frame. Make sure the velcro on the cover attaches to the velcro on the rear frame support piece.

Place the seat assembly onto the four height adjustment posts. Connect the control cable to the controller.

Follow the entry instructions elsewhere in this manual, and go for a ride.

## **CHARGING THE WHEELCHAIR BATTERIES**

Charging the batteries is the most important part of operating and maintaining your new wheelchair. Be sure you do it properly! As per international standards, it is recommended that only a gel cell or sealed suspended lead-acid type deep cycle battery be used on the Wheelchair. These batteries do not require water and have no danger of spillage. They are also approved by the Federal Aviation Administration for air travel.

Your wheelchair comes equipped with the new

### **RANGEMASTER - III Battery Charger**

**\*\*READ THIS MANUAL\*\*  
IT CONTAINS IMPORTANT SAFETY AND OPERATING INSTRUCTIONS**

#### **Introduction to Features of this Charger**

Wheelchairs equipped with the RANGEMASTER III, fully automatic battery charger, have a 24-volt/ 8 -ampere Constant Current Charger. It is designed to operate from virtually any AC line source and provides a constant charging output until the batteries are fully charged. This results in a maximum charge in a minimum amount of time. Conventional chargers have a declining output proportionate to the charge rate of the batteries.

The RANGEMASTER III is recommended for use with deep cycle, gel or sealed lead acid batteries, and can be left "on charge" indefinitely without harm to the batteries. Plus, the RANGEMASTER will operate from an AC line source as low as 90-volts and as high as 240-volts (50-60 Hz). Circuit protection is built into the device to protect the circuitry with reverse polarity protection on both input and output of the RANGEMASTER III charger.

This charger is provided with a pair of Light Emitting Diodes (LED's) at one end which provide the following indications:

1. AC plugged in - yellow LED is steadily on.
2. With the AC connected and the charger connected to the batteries (via the charger plug) - red and green LED's are on. With the green LED plug) - yellow and green LED's are on, with the green LED flashing to indicate charging.
3. At full battery charge -the green LED turns to steady on, and the charger goes to a float mode (charges at a lower rate than the 8-ampères) and continues to monitor the batteries.

**Note:** the yellow LED will flash in a fault condition - check wiring and connectors for integrity.

There is a small cooling fan located inside the charger which is thermostatically controlled and may come on when internal temperatures rise beyond design limits. This may or may not operate at regular intervals. Do not rely on its operation as an indication of charger output.

### **Important Safety Instructions:**

++WARNING++ Because you will be connecting and disconnecting AC voltage to the wheelchair, DO NOT do so in the presence of moisture (i.e. rain, puddled water, snow, etc.). Electrical shock hazard could be present. Observe caution and safety warnings.

- a.) Observe the caution on lead-acid batteries being charged. Batteries can generate explosive gasses during operation. It is for this reason that you must read and follow these safety precautions;
- b.) To reduce risk of battery explosion:
  - i. never smoke or allow open flame or sparks around a charging battery;
  - ii. never charge a frozen battery;
  - iii. use charger for charging lead acid-type or AGM batteries only; it is not intended to charge dry cell batteries, or act as a power source for low voltage circuits. Either of these conditions could harm the charger or cause dangerous conditions to exist. This charger is recommended for use with deep cycle-type batteries.
- c.) Study all information supplied with batteries. Study battery precautions for charging, as well as the recommended rate of charge.
- d.) The user is instructed to NOT use the charger with a battery configuration not matching the output voltage rating of the charger.
- e.) Do not operate the charger in closed area or restrict ventilation around the charger in any way.
- f.) Do not disconnect the DC portion of the charger circuit while the AC cord is still connected to the electrical outlet.

### **Basic Safety Instructions:**

1. Do not expose the charger to rain, snow or other moisture sources (i.e., sprinkler, car wash, etc.). When storing wheelchair, keep inside a building.
2. Use of the charger in a manner not recommended by the manufacturer may result in the risk of fire, electrical shock or personal injury.
3. To reduce the possibility of damage to the AC cord or the connector, disconnect the AC line cord by grasping the plug and not the cord, when disconnecting from either the wheelchair or the wall receptacle.

### **Basic Safety Instructions: (continued)**

4. Locate cord so that it will not be stepped on, tripped over or subjected to the possibility of damage.
5. An extension cord is not recommended for use with this equipment. Use of an improperly rated extension cord could result in risk of fire or electrical shock. Should it be required to use an extension cord, make certain that it is of 3-wire construction and has a wire size of 16-gauge, and the cord must be in good electrical condition.
6. Do not operate this charger with damaged AC cord or receptacle. If they are damaged, replace them immediately.

7. Do not disassemble the charger. If there is a perceived problem with the equipment, refer to the servicing section of this manual or refer to a qualified technician for service. Incorrect assembly of the charger could result in a risk of electrical shock or fire.
8. Do not operate the charger if it has received an impact of a severity that may render it inoperative; take it to a service technician.
9. To reduce the risk of electrical shock, unplug the charger from electrical outlet before attempting any maintenance or cleaning.

### **Before Charging:**

Verify that battery terminals are clean and that all charger connections are secure and in good condition.

### **Grounding and AC Power Connection:**

RANGEMASTER must be plugged into a grounded electrical outlet. The unit is provided with an electrical cord which contains a conductor for grounding. The charger cord must be plugged into an AC outlet that is properly installed, and is grounded in accordance with the National Electrical Code and all local electrical codes and ordinances.

**!! WARNING !!** - *Failure to plug the charger into a grounded receptacle could cause a condition allowing an electrical shock hazard to be present while charging.*

**!! WARNING !!** *Improper connection of the equipment grounding conductor can result in a risk of electrical shock.*

**!! CAUTION !!** - Never alter the AC cord or plug provided with this equipment. If it does not fit the outlet, have a properly grounded outlet installed by a qualified electrician.

A TEMPORARY AC ADAPTER may be used to connect the plug provided with this charger to a two-pole receptacle if a properly grounded receptacle is not available. The temporary adapter should only be used until a properly grounded outlet can be installed by a qualified electrician. The green colored tab on the adapter MUST be connected to a permanent ground such as a properly grounded outlet box.

**THE USE OF TEMPORARY ADAPTERS IS ILLEGAL IN CANADA AND SHOULD NOT BE USED. HAVE A QUALIFIED ELECTRICIAN INSTALL A GROUNDED OUTLET BEFORE USING THIS CHARGER.**

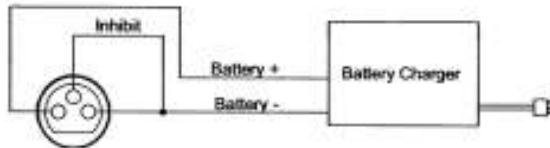
## Battery Charging

The satisfactory performance of the SHARK system is critically dependent on the type and state of the batteries. The battery charger used must be correctly selected and adjusted according to the battery manufacturer's instructions. Failure to do so may damage or destroy the batteries, give poor range, or be potentially dangerous. Batteries should not be abused (for example by deep discharging or overcharging) and must be operated and maintained according to the manufacturer's instructions.

The battery charger socket is a 3 pin XLR type with pin configuration as shown below. Ensure that the charger used is compatible with this pin out before connection. The safety link between B- and the Inhibit pin must be fitted so that the wheelchair is prevented from driving when the batteries are being charged.

**Warning :** Do not disconnect batteries or open circuit the circuit breaker during charging. This is dangerous to both people and equipment.

**System Battery  
Charger Plug  
(front view)**



**Note :** The inhibit is shorted to B- external to the System.



Plug the battery charger into the charging socket located at the front of the SHARK Remote.

The SHARK Information Gauge will indicate the system is being charged by cycling between a right-to-left "chase" and displaying the current battery state-of-charge.

Driving is prevented (inhibited) while the system is being charged.

Once the system status gauge displays a "full battery charge (all LED's are lit), the battery charger plug may be removed.

***Note:** If the SHARK is turned off, or goes into sleep while charging, charging will continue.*

### SHARK Information Gauge



The SHARK Information Gauge (located on the joystick console) is the primary source of user feedback. It displays every possible status that SHARK may have.

- SHARK Power ON
- True state-of-battery-charge, including notification of when the battery desperately requires charging.
  - Any green LED's lit indicates **well-charged** batteries.
  - If only **amber and red** LED's are lit, the batteries are **moderately charged**.  
Recharge before undertaking a long trip.
  - If only **red** LED's are lit the batteries are running out of charge. **Recharge** as soon as possible.

- SHARK Lock Mode countdown.
- Program, inhibit or charge modes.
- Fault indication (Flash Codes)

The following table indicates what the gauge will display for any given state.

Display	Description	This means...	Notes
	ALL LEDs OFF	Power is OFF or key has locked	
	ALL LEDs OFF - battery	Power is OFF	Level LED is always included factory charge
	Level 1-100% battery	Battery charged	The battery is now charged to 100% or more
	Charge in progress	Charge in progress	100% power available, when the battery is 100% charged, the charge is complete
	High power	High power	Battery is current state battery charge
	Low power	Low power	Battery is current state battery charge
	Charge in progress	Charge in progress	Charging the battery with the current charge
	Program mode	Program mode	Program mode is active, charge will be measured on the same time
	Program mode	Program mode	Program mode is active
	Charge in progress	Charge in progress	Charging the battery with the current charge
	Charge in progress	Charge in progress	Charging the battery with the current charge
	Charge in progress	Charge in progress	Charging the battery with the current charge

**!! CAUTION !!:** Be certain the wall cord is disconnected from the electrical outlet before moving the wheelchair. Moving the wheelchair without disconnecting the wall cord could result in damage to the wheelchair, the wall outlet or create a shock hazard condition.

**++WARNING++:** Because you will be connecting and disconnecting AC to the wheelchair, be cautious of doing so in the presence of water (i.e., rain or puddled water). Electrical shock hazard could be present. Observe caution and safety warnings.

**++WARNING++:** Lead-acid batteries generate gasses which can be explosive. Avoid smoking, sparks or open flames around charging batteries. Charge in area with adequate ventilation.

**++WARNING++:** Chargers can ignite flammable materials and gasses. Do not use near fuels, grain dust, solvents, thinners or other flammable materials. Charge in area with adequate ventilation.

### **Charging Notes:**

Regular use of your chair will require regular charging. It is a common misconception that batteries need to be run into deep discharge before recharging. This is not true and can lead to damage of the batteries if they are discharged too deeply before recharge. Likewise, if batteries are stored or used for a long period of time without recharge, this may result in permanent damage to the batteries resulting in unreliable operation and shortened battery life. Maximum driving range of your wheelchair can be obtained if the batteries are fully charged prior to a lengthy trip. Because the RANGEMASTER is a fully automatic charger, it can be "on charge" for an indefinite period of time without harm to the batteries.

### **Fuse:**

There are no replaceable fuses in the *RANGEMASTER III* charger. This charger uses solid state technology to protect the unit and the batteries until the fault has been removed.

### **Service/ Troubleshooting:** *Should your RANGEMASTER III charger fail to perform:*

1. First, check that all connections are properly made for a fully assembled wheelchair. On some equipment, the charger lines go through the motor plug, so if the motor plug is disconnected for some reason, then the charger will not function. Likewise, if the batteries are not connected, they will not receive a charge, and the meter will not give an indication.
2. Check that the wall outlet has power to it. The outlet may be on a switch and will not function if not switched on.

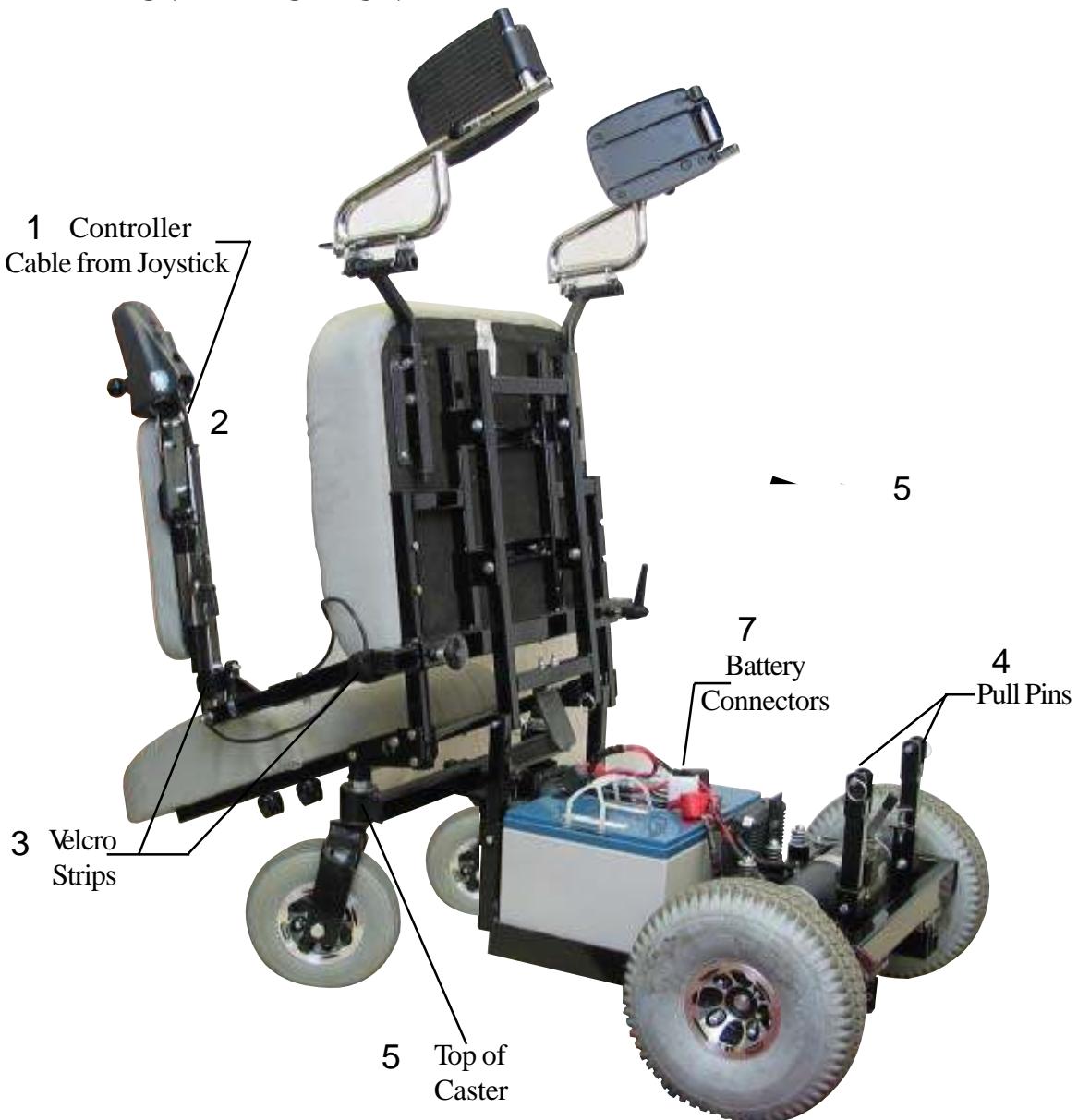
If these steps fail to produce satisfactory results, please refer to an authorized service center to have the system fully analyzed.

## Useful Battery Information

1. The battery indicator in the control panel takes into account time as well as battery voltage to provide a more accurate estimate of battery capacity while you are driving. The display simulates a bar graph where all LED's lit represent a full state of charge and a single red LED represents the lowest state of charge. If, while you are driving, the indicator falls into the red area, charge the batteries as soon as possible. Charging will bring deep cycle condition batteries up to full charge. You will not see maximum battery life if the batteries are routinely run to the deep cycle condition.
2. It is best to charge the batteries before they reach the deep cycle condition. Short charge intervals to keep a battery "topped off" are better than long intervals for bringing a battery up from deep cycle. The charger can be left on overnight or for several days at a time, but once the batteries are fully charged, it is best to unplug the charger.
3. Keep the batteries away from heat. Areas with excessive sunshine or excessive heat will cause a faster loss of charge in the batteries. Charging the batteries longer than necessary will also introduce heat into them. Heat will cause the batteries to lose their charge and also shorten their life.
- 4 Storage of batteries is very important to their life span. The very best way to maximize battery life is to store them in a fully charged condition in a cool place (NOT DIRECTLY ON A CONCRETE FLOOR). Then, periodically charge EVERY ONE TO TWO MONTHS to keep the batteries in this fully charged condition. Batteries should never be subjected to freezing temperatures. Undercharged batteries can be quickly ruined in freezing conditions.
5. Loose connections can keep the batteries from delivering their power. Visually check the battery wire connections in the battery box periodically for looseness. Always connect the red wire to the positive (+) battery terminal. Connect the black wire to the negative (-) battery terminal.

**WARNING:** Do not use a non sealed liquid lead acid deep cycle battery. Spillage of battery acid will cause severe burns, and will corrode metal components of the *Hoss Jr.*

## BATTERY REMOVAL FROM UNIT



**CAUTION - Failure to unplug cable from back of joystick before tilting seat back may result in damage to the joystick and cable.**

1. Turn power off to controller.
2. Disconnect controller cable at back of seat
3. Remove the pull pins from the front of the seat.
4. Tilt seat rearward until seat back supports rest on the top of the casters.
5. Remove plastic shroud from unit. **Be sure not to damage the controller cable.**
6. Disconnect the battery connectors.
7. Remove batteries.

## **Storage of the Hoss Jr.**

### **Short Term and Overnight Storage**

When ending *Hoss Jr's* use for the day, if the batteries do not need charging, simply turn the power OFF and remove it. The next morning, put the power in, get in, turn power ON and you are ready to go again.

### **Long Term Storage**

When the *Hoss Jr.* will not be used for an extended period of time, there are several things you should do to help maintain its proper working condition.

The powerchair and its batteries should only be stored in a dry environment with moderate temperatures. Long term exposure to excessive hot or cold temperatures will be harmful to the life of the batteries. The batteries must be fully charged before they are stored. We also recommend that you disconnect the battery leads or remove the batteries from the powerbase.

Every one to two months, you should reconnect the battery leads and the charger to make sure that the batteries are still fully charged.

## **Maintaining the Hoss Jr.**

In general, the *Hoss Jr.* is very easy to maintain. Consult your dealer if any repairs, adjustments, or damaged part replacements are needed.

### **Routine Maintenance**

#### **Daily**

- Charge the batteries, if required, as described in the "Charging the *Hoss Jr.* Batteries" section of this manual.

#### **Weekly**

- Check the tire pressure for proper inflation. (see the proper specifications for the wheelchair you own).
- Clean the *Hoss Jr.* using a damp cloth with a mild soap. Use a minimal amount of water. Do not allow electrical components to get wet. Wipe dry.

#### **Monthly**

- Look the *Hoss Jr.* over in general making sure all the bolts and nuts are still tight.
- Inspect the battery and motor connections for wear, damage, and that proper connections are made.

### **Twice a Year**

- Inspect all wheels for looseness and tire wear.
- Clean the upholstery as needed.

### **Yearly**

- Thoroughly examine your wheelchair to look for undetected wear and other potential problems and have problems repaired immediately. The expense involved is always less than repair bills caused by a lack of proper maintenance. In the same way a car would not last without service, a wheelchair should be maintained regularly.

**AND REMEMBER!** If you ever notice any part of your *Hoss Jr.* wheelchair working in an improper or unsafe manner, stop riding it immediately and contact your dealer to arrange repairs. Do not use your wheelchair if there is a possibility it is not safe!

### **Troubleshooting**

If the *Hoss Jr.* will not move, check the following.

1. Turn the power switch OFF and then back ON.
2. There is a visible circuit breaker. It is located on the front of unit under the seat. You will not see any white on the button when it is set in the correct operating position. Also check to see that all of the wires are securely attached to the box.
3. Check the controller plug for proper connection.
4. Check the battery plugs for proper connections.
5. Check the BATTERY indicator for discharged batteries.
6. Turn the power switch OFF and then back ON a second time.
7. If the wheelchair still will not move, check the LED status indicator to see if it indicates a fault and consult the diagnostic section of this manual or contact your dealer.

## DIAGNOSTICS

**Note:** SHARK is not user serviceable. Specialized tools are necessary for the repair of any SHARK component.

### INTRODUCTION

A flashing SHARK information gauge indicates there is an abnormal condition somewhere on the powerchair. The components that SHARK provides fault information for include, the motor, the park brakes, the batteries, the cabling and the SHARK modules themselves.

Note that joystick OONAPU (Out Of Neutral At Power Up) is not a fault. Simply by removing your hand from the joystick and allowing it to return to the neutral position, the fault will immediately clear.

The nature of the abnormal condition is indicated by a flash code. This is a sequence of flashes, separated by a pause, followed by a repetition of the sequence. The number of flashes relates to the condition. For instance, four flashes of the SHARK information gauge, a pause, followed by four flashes, etc. indicates a right motor fault. Five flashes would indicate a left park brake fault.

Depending on the severity of the condition, the powerchair may or may not allow driving. In some cases the chair may be allowed to drive but in a reduced speed ("limp") mode.

## DIAGNOSTICS & FAULTS



Flash codes indicate the nature of an abnormal condition directly from the SHARK Information Gauge. Without the use of any servicing tools, the condition can be simply diagnosed.

CODE	DESCRIPTION	CORRECTION
1	User Fault	Possible stall timeout or user error. Release the joystick to neutral and try again.
2	Battery Fault	Check the batteries and cabling. Try charging the batteries. Batteries may require replacing.
3	Left Motor Fault	Check the left motor, connections and cabling.
4	Right Motor Fault	Check the right motor, connections and cabling.
5	Left Park Brake Fault	Check the left park brake, connections and cabling.
6	Right Park Brake Fault	Check the right park brake, connections and cabling.
7	SHARK Joystick Console Fault	Check the SHARK Communications Bus connections and wiring Replace the Joystick Console.
8	SHARK Power Module Fault	Check SHARK connections and wiring Replace the Power Module.
9	SHARK Communications Fault	Check SHARK connections and wiring Replace the SHARK Bus cable.
10	Unknown Fault	Check all connections and wiring.
11	Incompatible System Components	Wrong type of Control Unit connected. Ensure the branding of the Power Module matches the Joystick Console.

If the light continues to flash after following the procedures in the LED Diagnostic Code chart, do not ride the wheelchair. Notify your dealer for repair.

## **Commonly Asked Questions and Possible Answers**

### **Why has there been a sudden loss of power?**

1. Undercharged batteries. Check the BATTERY indicator. The BATTERY indicator indicates the charge condition of the batteries while you are driving. The indicator will not indicate the “true condition” of their capacity until the wheelchair has been setting on, in an idle condition, for several minutes. The green area corresponds to a good charge. The red area corresponds to a low charge, or a deep cycle condition. It is possible to drive the wheelchair with the batteries in a deep cycle charge condition, but once they drop below a certain level of power, they will fail and you will be stranded. If, while you are driving, the indicator falls into the red area, charge the batteries as soon as possible. Charging will bring deep cycle condition batteries up to full charge. You will not receive maximum battery life if the batteries are routinely run to the deep cycle condition.
4. Under-inflated tires. Check for proper inflation (check the specifications for your particular wheelchair).
5. Excessive weight on the wheelchair. Remember that *Hoss Jr* takes a maximum of 500 Lbs.
6. There may be other motor or driving mechanism malfunctions. Consult with your dealer.

### **Will leaving the batteries for a long time damage them?**

Yes. Storage of batteries is very important to their life span. The very best way to maximize battery life is to store them in a fully charged condition in a cool place. Then periodically (every 1-2 months!) charge to keep the batteries in this full charge condition. Do not store in cold or freezing temperatures. Batteries should never be subjected to freezing temperatures. Undercharged batteries can be ruined quickly in freezing conditions.

## Can a regular liquid lead-acid battery be used, like in a car?

No. A DEEP CYCLE battery must be used. A car battery is not deep cycle. Deep cycle batteries (boat type batteries) are available in both suspended liquid lead-acid and gel cell lead-acid. Either type can be used. It is recommended that a gel cell or a sealed lead-acid type battery be used on the *Hoss Jr.*. These batteries are maintenance free and have no danger of spillage. They are also approved by the Federal Aviation Administration for air travel. Do not use a conventional liquid lead-acid deep cycle battery. Spillage of the battery acid can cause severe burns and will damage many components of your *Hoss Jr.*. The charger which came with the *Hoss Jr.* is designed specifically to charge our type of batteries.

## Why will my *Hoss Jr.* not climb an incline?

1. Excessive weight on the wheelchair for the grade of the incline. Refer to the Ramp Incline Chart in this Owner's Manual.
2. Batteries not fully charged, or are bad. Charge them and have them tested.
3. Under-inflated tires.
4. Attempting to go up the incline in reverse. Remember, there is a forty-five percent (45%) reduction in speed when moving in the reverse direction.

*Again, thank you for your purchase of a *Hoss Jr.* wheelchair. We hope that you will enjoy many years of trouble free service and freedom on your new wheelchair. Remember, your investment and your safety depend upon following the guidelines and suggestions contained in this manual.*

## ELECTROMAGNETIC INTERFERENCE

**CAUTION: IT IS VERY IMPORTANT THAT YOU READ THIS INFORMATION REGARDING THE POSSIBLE EFFECTS OF ELECTROMAGNETIC INTERFERENCE ON YOUR POWERED WHEELCHAIR.**

### **Electromagnetic Interference (EMI) From Radio Wave Sources**

Powered wheelchairs and motorized scooters (in this text, both will be referred to as powered wheelchairs) may be susceptible to electromagnetic interference (EMI), which is interfering to electromagnetic energy (EM) emitted from sources such as radio stations, TV stations, amateur radio (HAM) transmitters, two-way radios, and cellular phones. The interference (from radio wave sources) can cause the powered wheelchair to release its brakes, move by itself, or move in unintended directions. It can also permanently damage the powered wheelchair's control system. The intensity of the interfering EM energy can be measured in volts per meter (v/m). Each powered wheelchair can resist EMI up to a certain intensity. This is called its "immunity level." The higher the immunity level, the greater the protection. At this time, current technology is capable of achieving at least a 20 v/m immunity level, which would provide useful protection from the more common sources of radiated EMI.

There are a number of sources of relatively intense electromagnetic fields in the everyday environment. Some of these sources are obvious and easy to avoid. Others are not apparent and exposure is unavoidable. However, we believe that by following the warnings listed below, your risk to EMI will be minimized.

The sources of radiated EMI can be broadly classified into three types:

- 1) **Hand-held portable transceivers** (transmitters-receivers) with the antenna mounted directly on the transmitting unit. Examples include: citizens band (CB) radios, "walkie talkie," security, fire, and police transceivers, cellular telephones, and other personal communication devices. **\*\*NOTE:** Some cellular telephones and similar devices transmit signals while they are ON, even while not being used;
- 2) **Medium-range mobile transceivers**, such as those used in police cars, fire trucks, ambulances, and taxis. These usually have the antenna mounted on the outside of the vehicle; and
- 3) **Long-range transmitters and transceivers**, such as commercial broadcast transmitters (radio and TV broadcast antenna towers) and amateur (HAM) radios.

**NOTE:** Other types of hand-held devices, such as cordless phones, laptop computers, AM/FM radios, TV sets, CD players, and cassette players, and small appliances, such as electric shavers and hair dryers, so far as we know, are not likely to cause EMI problems to your powered wheelchair.

## **Powered Wheelchair Electromagnetic Interference (EMI)**

Because EM energy rapidly becomes more intense as one moves closer to the transmitting antenna (source), the EM fields from hand-held radio wave sources (transceivers are of special concern). It is possible to unintentionally bring high levels of EM energy very close to the powered wheelchair's control system while using these devices. This can affect powered wheelchair movement and braking. Therefore, the warnings listed below are recommended to prevent possible interference with the control system of the powered wheelchair.

## **WARNINGS**

Electromagnetic interference (EMI) from sources such as radio and TV stations, amateur radio (HAM) transmitters, two-way radios, and cellular phones can affect powered wheelchairs and motorized scooters. Following the warnings listed below should reduce the chance of unintended brake release or powered wheelchair movement which could result in serious injury.

- 1) Do not operate hand-held transceivers (transmitters-receivers), such as citizens band (CB) radios, or turn ON personal communications devices, such as cellular phones, while the powered wheelchair is turned ON;
- 2) Be aware of nearby transmitters, such as radio or TV stations, and try to avoid coming close to them;
- 3) If unintended movement or brake release occurs, turn the powered wheelchair OFF as soon as it is safe;
- 4) Be aware that adding accessories or components, or modifying the powered wheelchair, may make it more susceptible to EMI (Note: There is no easy way to evaluate their effect on the overall immunity of the powered wheelchair); and
- 5) Report all incidents of unintended movement or brake release to the powered wheelchair manufacturer, and note whether there is a source of EMI nearby.

## **Important Information**

- 1) 20 volts per meter (v/m) is a generally achievable and useful immunity level against EMI (as of May 1994) (the higher the level, the greater the protection).
- 2) ? This model of Wheelchair has an immunity level of 20 volts per meter (20 v/m).  
? The immunity level of this model of Wheelchair is unknown.



## HOSS Jr. Limited Warranty

ConvaQuip Ind., Inc. will repair or replace at its option to the original PURCHASER any of the following components found upon examination by an authorized representative of ConvaQuip Ind., Inc. to be defective in material and/or workmanship under normal use and service for a period of . . .

**Three Year Limited Warranty** on any structural frame components.

**Two Year Limited Warranty** from date of purchase on any of the electronic parts.

**Year One** 100% (parts cost only)

**Year Two** 50% (parts cost only)

**One Year Limited Warranty** on any of the motor and gearbox parts (except motor brushes & brake pads.)

**Year One** 100% (parts cost only)

**Six Month Warranty** on any plastic components (except body shroud), rubber components, bearings and bushings, casters and anti-tip wheels.

The Manufacturer's Authorized Dealers can perform warranty service. Parts or components should not be returned to the Manufacturer without prior consent. All transportation cost and shipping damage incurred while submitting parts for repair or replacement are the responsibility of the original purchaser.

All parts that are defective, as determined by the factory, will be replaced free of charge within the warranty period (see above warranties for details). This Warranty from ConvaQuip Ind., Inc. DOES NOT INCLUDE LABOR, either at your home or at your dealer's place of business. During the warranty period, ConvaQuip Ind., Inc. may, at its discretion, determine it is necessary to return *Hoss Jr.* to the factory for repair. ConvaQuip Ind., Inc., Inc. will provide parts and labor, at our factory, free of charge for problems considered to be covered under our warranty. The customer is responsible for all freight charges if the power wheelchair is shipped to the factory.

Failure to properly service the power wheelchair at the intervals prescribed by the owners manual, abuse or faulty service may void this limited warranty and can result in charges for parts and service. All rights under this limited warranty must be exercised within 20 days after the end of the warranty.

### **Warranty Exclusions:**

- ABS plastic shrouds.
- Batteries (The battery manufacturer covers battery warranty. ConvaQuip Ind., Inc., Inc. does not warrant batteries).
- Tires and Tubes
- Upholstery (seating)
- Repairs and/or modifications made to any part without specific consent from the Manufacturer.
- Circumstances beyond the control of the Manufacturer.
- Damage resulting from operation other than the intended use of the product.
- Damaged Caused By:
  - Battery fluid spillage or leakage
  - Abuse, misuse, accident or negligence
  - Improper operation, maintenance or storage
  - Commercial use or use other than normal

THERE IS NO EXPRESS WARRANTY. IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO ONE YEAR FROM THE DATE OF PURCHASE AND TO THE EXTENT PERMITTED BY THE LAW. ANY AND ALL IMPLIED WARRANTIES ARE EXCLUDED. THERE IS NO EXCLUSIVE REMEDY. LIABILITIES FOR CONSEQUENTIAL DAMAGES UNDER ANY AND ALL WARRANTIES ARE EXCLUDED.

Warranty cards should be completed and returned by the original purchaser to the Manufacturer in a timely manner.

Dear Friend:

Thank you so much for your purchase of a HOSS Jr. power wheelchair! We value your trust in us and we will do everything we can to keep you happy. You're in a special group now. Thousands of people before you have trusted ConvaQuip to provide them with the highest quality mobility products available. They and you have made HOSS Jr. the most valuable wheelchair.

We hope that you have read the Owners Manual completely, and that you understand all of the safety precautions and recommendations that apply to your particular wheelchair. If you have any questions, please ask you ConvaQuip dealer. They can help explain any points that you do not understand.

In addition, your dealer will be glad to help you with any of your other ConvaQuip needs. Situated close to you, they are in the best position to provide you with assistance and service.

The following warranty card must be filled out in order for ConvaQuip Ind., Inc. to:

1. effectively warranty your product in case of a problem
2. to properly follow the guidelines laid down by the Food & Drug Administration and to
3. allow us to locate you in the event of a product recall or modification

We also ask several questions about you to help us better understand the needs of our customers. The information you provide us helps to keep our power chairs at the leading edge of quality and functionality and we hope that we can count on you to help us. ConvaQuip always values the options of our customers and you may write us at any time to relate to us your "HOSS Jr. Experience" good (or not so good).

**REMEMBER...**

It is in your best interest to see that you (not your dealer) properly complete this card and see that it is returned to ConvaQuip Ind., Inc.

**For Service Call:**

Dealer: \_\_\_\_\_

City, St.: \_\_\_\_\_

Your Serial Number is: \_\_\_\_\_

**DEALER NAME** (if different from above) \_\_\_\_\_

**YOUR NAME** \_\_\_\_\_

**ADD1** \_\_\_\_\_

**ADD2** \_\_\_\_\_

**CITY, ST, ZIP** \_\_\_\_\_

**PHONE** \_\_\_\_\_ / **Date Purchased** \_\_\_\_\_ / \_\_\_\_\_

(sign) \_\_\_\_\_

Why did you purchase a power wheelchair (PWC)? *Arthritis* (  ) *Injury* (  ) *C.O.P.D.* (  ) *MS/MD* (  ) *Other* \_\_\_\_\_

Is this the first (  ) or second (  ) PWC you have purchased?

How did you become aware of PWC? \_\_\_\_\_

How long do you ride your PWC daily?

*1-2 hrs* (  ) *2-4 hrs* (  ) *4-6 hrs* (  ) *More* (  )

Was Medicare (  ) or a private Insurance (  ) used?

Do you own or have a power chair or scooter? (  ) Yes (  ) No

What influenced your decision to purchase? (Check all that apply)  
*Price* (  ) *Features* (  ) *Colors* (  ) *Comfort* (  ) *Power* (  )

Were you satisfied with your purchase? (if not why?)  
\_\_\_\_\_

What could we do better? (*features, option, etc.*)  
\_\_\_\_\_

What other brands did you look at:  
\_\_\_\_\_

Which TV shows do you watch daily?  
\_\_\_\_\_

Which type of radio station do you listen to daily?  
\_\_\_\_\_

Do you read the newspaper regularly?  
\_\_\_\_\_

Which magazine do you read regularly?  
\_\_\_\_\_

Additional Comments:  
\_\_\_\_\_

**To help us better understand our customers**, we would like to know a little about you. Please fill in all the information you can.

**AGE:** \_\_\_\_\_ **WEIGHT:** \_\_\_\_\_ **HEIGHT:** \_\_\_\_\_

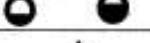
Cut along dotted line

**WARNING:** To make adjustments while sitting in the HOSS Jr., you must be secured by wearing your lab belt to prevent you from falling forward.

### TO ADJUST FRONT ANTI-TIP WHEEL HEIGHT

Turn thumbscrews clockwise to maximum height position.  
Then lower wheel arm by turning thumbscrews counterclockwise.  
Count the number of turns as you lower each side to have equal wheel height on both side.  
Remember, the lower the anti-tip wheel the better the front stability when stopping as you go down an incline.

#### EXPLAINATION OF INTERNATIONAL SYMBOLS USED WITH THIS EQUIPMENT

SYMBOL	EXPLAINATION
	INFORMATIONAL - ON - OFF
	INFORMATIONAL - EMPTY - FULL
	INFORMATIONAL - READ MANUAL - CAN BE ASSOCIATED WITH WARNINGS
	INFORMATIONAL - READ MANUAL - CAN BE ASSOCIATED WITH WARNINGS
	INFORMATIONAL - DO NOT OPEN CONTROLLER BOX
	ELECTRICAL - MAINS SWITCH/ CIRCUIT BREAKER
	ELECTRICAL - PERSONAL SHOCK HAZARD
	ELECTRICAL - BATTERY - OBSERVE POLARITY
	ELECTRICAL - MOTOR
	ELECTRICAL - CLASS B EQUIPMENT

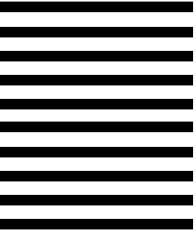
Please fill in your return address

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NO POSTAGE  
NECESSARY  
IF MAILED  
IN THE  
UNITED STATES



**BUSINESS REPLY MAIL**

FIRST-CLASS MAIL    your permit # here    ABILENE, TX

POSTAGE WILL BE PAID BY ADDRESSEE

ConvaQuip Ind., Inc.  
P.O. Box 3417  
Abilene, TX 79604